

REMARKS

This amendment is in response to the Office Action mailed February 28, 2001. The response is in the order in which the issues are set forth in the Office Action.

Claims 15-16, 19-20, 33 and 36 are rejected under 35 USC 102(e) as being anticipated by Dosiere et al. (US Paent 5,778,000). The examiner's argument in supporting the rejection is set forth on pages 3 and 4 of the Office Action and can be reviewed if necessary.

Applicants have reviewed the examiner's comparison between applicants' claims 15, 19 and 33 and US Patent 5,778,000 and respectfully disagree with the examiner's characterization that Dosiere et al. anticipates applicants' claim. In US Patent 5,778,000 (Dosiere et al.) a window amount is pulled out of the data stream and goes to that address in memory. The data read from memory tells the logic if the compare is correct. The logic picks this value up and uses it to address a second memory location (in the same memory). This second location contains additional information, including any bit error counts, the bit pointer, and head mask value (Figs. 2a, 2b, 3a and 3b and appropriate section of the specification). This head mask value indicates how much of the pattern word preceded the window that was checked. There is also a tail mask value to indicate how much of the pattern word follows a window that was checked.

The difference between applicants' claimed invention and Dosiere is that there is indeed only one memory in Dosiere whereas applicants' claim calls for two memories. The examiner is probably confused by seeing the term "second memory location" in the text. It is not referring to a different memory, only a different location in the same memory.

In addition Dosiere's "mask value" does not indicate the pattern which is to be compared with data from the data stream as is the case in applicants' claims. In contrast, the Dosiere mask indicates how many bits in front of and in back of the current check window are part of the pattern word. The use of mask in Dosiere is definitely different than applicants' use and definition of mask in the claims.

It is settled law that for a reference to anticipate a claim every element of the claim must be set forth in the reference. As argued above and pointed out in at least two elements of applicants' claim the mask (referred to as a pointer in claim 33) and the different memories clearly distinguishes over Dosiere et al. As a consequence the claims are not anticipated by the Dosiere et al. reference.

Regarding newly added claims 37 and 38, these claims set forth specific relationship between the mask word and the patterns. This relationship is not set forth in Dosiere or any of the cited references. Therefore, for reasons set forth above, claims 37 and 38 are clearly patentable over the art of record.

Claims 33-34 are rejected under 35 USC 102(e) as being anticipated by Williams et al., US Patent 5,938,771. On page 4 section 14 of the Office Action, the examiner attempts to read the Williams reference on applicants' claims. After reviewing the examiner's comparison applicants conclude that the comparison is in error and the reference does not show, among other things, a and c (claim 33) and a and b (claim 34). Applicants have reviewed the reference in detail and even though the reference speaks about pattern matching it does not set forth any details of how the matching is to be done. As argued above, it is settled law that in order for a reference to anticipate a claim every element of the reference has to be disclosed with specificity in the reference. It is applicants' position that the Williams et al. reference does not even suggest the method of pattern matching much less to disclose teachings that would anticipate the claims

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as set forth in applicants' application. As a consequence applicants argue that claims 33 and 34 are not anticipated by the Williams reference.

Claims 17-18, 21-32 are rejected under 35 USC 103(a) as being unpatentable over Dosiere et al. (US Patent 5,778,000) as applied to claims 15, 19 above and further in view of Jeng (US Patent 5,892,768).

In response, applicants would like to address the citation of Jeng (US Patent 5,892,768) as a reference to applicants' claim. Applicants have reviewed the Jeng reference and the examiner's discussion of the reference and fail to see its applicability to applicants' claims. Jeng's patent teaches an invention to convert between HDSL frames and ethernet MII. This teaching has no bearing on applicants' claim which includes pattern matching. Therefore, the Jeng reference in combination with Dosiere et al. would not render any of applicants' claims obvious.

Regarding the Dosiere et al. reference (US Patent 5,778,000) and its applicability to claims 17-18, 21-32 under 35 USC 103(a), as argued above there are physical differences between this reference and applicants' claim. With respect to the rejection under 103 in which the Dosiere et al. reference is prior art applicants argue that Dosiere et al. teaches away from applicants' invention. It teaches away in that it calls for a single memory whereas applicants' invention calls for at least two memories, one storing the pattern, the other storing the mask which selects the pattern to compare with the data coming off the network. By storing the patterns in a different memory from the mask, a single read from the mask memory pulls a plurality of bits which can be used to identify masks in the mask memory. In operation a single read from the mask memory with multiple reads, one every cycle from the pattern memory, makes a much more efficient system whereas the clock can run much slower than if the mask and pattern were in the same memory. Applicants argue that because of this benefit coupled with the

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difference between the reference and applicants' claim the reference is not obvious in view of the teachings in applicants' claim.

In addition, applicants argue that with respect to the Dosiere et al. reference applicants claims are patentable in that the teaching in Dosiere et al. would be impractical to use in applicants' environment. This is so because according to the teaching in Dosiere, the memory requirements go up exponentially with the window size and pattern word size. Also, Dosiere allows checking of only one pattern where applicants have multiple different patterns that the receive data can be compared against. Dosiere's invention is used to recognize a small synchronization pattern in a stream of data, so the alignment of the frame can be determined. In contrast, applicants' invention allows matching of a long stream of data with multiple patterns. Because the reference cannot be used in the environment that applicants' invention is used, applicants argue that this is evidence of unobviousness.

It is believed that the present amendment answers all the issued raised by the examiner. Reconsideration is hereby requested and an early allowance of all the claims is solicited.

Respectfully Submitted,


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